US009477829B2

US 9,477,829 B2

(12) **United States Patent**
Zhao et al.

(10) **Patent No.:** **US 9,477,829 B2**
(45) **Date of Patent:** *Oct. 25, 2016

(54) **LOCKING AND UNLOCKING A MOBILE DEVICE USING FACIAL RECOGNITION**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **14/624,443**

(22) Filed: **Feb. 17, 2015**

(65) **Prior Publication Data**

US 2015/0193611 A1 Jul. 9, 2015

Related U.S. Application Data

(63) Continuation of application No. 13/049,614, filed on Mar. 16, 2011, now Pat. No. 8,994,499.

(51) **Int. Cl.**
G06F 21/32 (2013.01)
G06K 9/00 (2006.01)
(Continued)

(52) **U.S. Cl.**
CPC *G06F 21/32* (2013.01); *G06K 9/00228* (2013.01); *G06K 9/00288* (2013.01); *H04W 12/06* (2013.01); *H04L 63/0861* (2013.01); *H04W 88/02* (2013.01)

(58) **Field of Classification Search**
CPC .. G06F 21/32; G06K 9/00228; H04W 12/06
USPC 340/5.1, 5.8, 5.81, 5.83, 5.82, 5.53
See application file for complete search history.

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(57) **ABSTRACT**

In an embodiment of the invention, an unlocked mobile device is configured to capture images, analyze the images to detect a user's face, and automatically lock the device in response to determining that a user's face does not appear in the images. The camera capturing and face recognition processing may be triggered by the device having detected that it has been motionless for a threshold period of time. In another embodiment, a locked mobile device is configured to capture an initial image using its camera, capture a new image in response to detecting movement of the device, determine that the device moved to a use position, capture a subsequent image in response to determining that the device moved to a use position, analyze the subsequent image to detect a user's face, and unlock the device in response to detecting the user's face. Other embodiments are also described and claimed.

27 Claims, 4 Drawing Sheets